

## **ABSTRACT OF THE DISCLOSURE**

A graphics rendering engine within a software development tool is used to perform software debug operations by analyzing the status of instructions within various stages of a superscalar processor pipeline. The debug operations are carried out using code breakpoints selected by a user through a graphical user interface. Once a line of code is selected, the processor pipeline can be examined by designating a highlighted color, for example, for certain stages and corresponding instructions that will proceed to the next stage, and not designating stages and corresponding instructions that will not proceed. This allows a user to visually examine the efficiency of the instruction throughput at select regions in the sequence of instruction addresses. Armed with the information, a user can then modify the sequence if desired.